Hardy Lake

Scott and Jefferson Counties Supplemental Survey

Dates of Survey: October 24 and October 29 to 31, 2007

Biologists: Larry L. Lehman and Clinton R. Kowalik

Survey Objectives: Evaluate stocking success of age-0 striped bass fingerlings and growth of older striped bass and hybrid striped bass in Hardy Lake.

Methods: On October 24 and 29, fish collection effort consisted of 4.0 h of pulsed DC night electrofishing with two dippers. Sixteen 15-min shoreline stations were sampled throughout the lake. October 29 through 31, two striper gill nets and two experimental-mesh gill nets were set overnight for two nights. Fish were measured to the nearest 0.1 in TL and weighed to the nearest ounce; weight is reported to the nearest 0.01 lb. Scales and otoliths were collected for age and growth determination.

Summary: Striped bass fingerlings were not available for stocking in 2003 or 2004, but were stocked in June 2005, 2006, and 2007 (Table 1). No striped bass or hybrid striped bass of any age were collected during the 4.0-h electrofishing survey. None were collected in the 2005 electrofishing survey either. The absence of age-0 stripers in this survey indicated that the 2007 stocking was unsuccessful.

From the gill nets, a total of 17 striped bass was collected (TL range = 15.7 to 30.8 in; weight range = 1.50 to 13.25 lbs). A total of three hybrid striped bass was also collected from the gill nets (TL range = 22.9 to 23.9 in; weight range = 6.00 to 6.50 lbs).

An angler creel survey was conducted at Hardy Lake from April 1 through October 31, 2007 (Kowalik and Lehman 2008). Anglers reported that they caught and released 10 stripers under 17.0 in and 2 stripers and/or wipers 17.0 in and longer. Based on these numbers, an estimated 83 and 15 were released, respectively.

Striped bass and hybrid striped bass were not aged. Although the sample size was small in 2005, growth of Hardy Lake striped bass appears to be comparable to that observed for striped bass at three other impoundments in southern Indiana (Table 2). Evaluation of striped bass and hybrid striped bass stockings will continue according to the guidelines in the DFW work plan.

Literature Cited:

Kowalik, C.R. and L.L. Lehman. 2008. Hardy Lake Fish Management Report, 2007. Fisheries Section, Indiana Department of Natural Resources, Indianapolis, Indiana.

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Table 1. Stocking record for striped bass and hybrid striped bass by IDNR at Hardy Lake.

| Species | Number | Mean TL (in) | Stocking date | |
|---------------------|--------|--------------|---------------|--|
| Striped bass | 7,410 | 1.20 | May 31, 2001 | |
| Hybrid striped bass | 7,410 | 1.66 | June 19, 2002 | |
| Striped bass | 7,410 | 1.85 | June 29, 2005 | |
| Striped bass | 14,820 | 0.90 | June 28, 2006 | |
| Striped bass | 7,410 | 1.00 | June 28, 2007 | |
| | | | | |

Table 2. Back-calculated length (in) at age for striped bass at four southern Indiana impoundments. Y intercept = 0.0 in. Hybrid striped bass (HSTB) collected from Hardy Lake in 2005 included for comparison.

| | Back-calculated length at age | | | | | | | | |
|--------------|-------------------------------|------|------|------|------|------|------|------|--|
| Site | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Brookville | 6.6 | 13.6 | 19.0 | 23.5 | 26.4 | 29.9 | 32.9 | | |
| Harden | 6.1 | 13.4 | 20.7 | 26.8 | 30.6 | 31.9 | 33.6 | 34.7 | |
| Patoka | 5.9 | 14.2 | 19.7 | 24.6 | 27.7 | 29.8 | 31.4 | | |
| Hardy | 5.1 | 14.3 | 18.4 | 25.5 | | | | | |
| Hardy (HSTB) | 4.4 | 11.7 | 18.2 | | | | | | |